AMENDMENTS TO THE CLAIMS

1.(original) A process for the preparation of a nanoparticle dispersion of an optionally doped metal chalcogenide, comprising the steps of

(a) performing a precipitation by mixing together appropriate aqueous solutions of metal cations, of chalcogenide anions, and optionally of a salt of the dopant respectively, thus forming a predispersion,

(b) performing a diafiltration and/or ultrafiltration washing step on said predispersion, characterized in that said step is performed in the presence of a compound capable of preventing agglomeration of the nanoparticles of the dispersion.

2.(original) A process according to claim 1 wherein said optionally doped metal chalcogenide is chosen from the group consisting of ZnS, ZnSe CdS, CdSe, doped ZnS, doped ZnSe, doped CdS and doped CdSe.

3.(original) A process according to claim 2 wherein said metal chalcogenide is ZnS doped with Mn^{2+} or Cu^{+} ions.

4.(original) A process according to claim 1 wherein said precipitation step is performed according to the double jet principle whereby a first solution containing said metal ions and optionally said dopant salt, and a second solution containing said chalcogenide anions are added simultaneously to a third solution.

5.(original) A process according to claim 1 wherein said compound preventing agglomeration of the nanoparticles of the dispersion is thioglycerol.

6.(original) A process according to claim 1 wherein said compound preventing agglomeration of the nanoparticles of the dispersion is glycerol.

7.(original) A process according to claim 1 wherein said compound preventing agglomeration of the nanoparticles of the dispersion is a polyphosphate or polyphosphoric acid.

8.(currently amended) A process <u>for the preparation of a nanoparticle dispersion of an optionally doped metal chalcogenide, comprising the steps of</u>

<u>(a) performing a precipitation by mixing together appropriate</u>

aqueous solutions of metal cations, of chalcogenide anions, and optionally of a salt of the dopant respectively, thus forming a predispersion,

(b) performing a diafiltration and/or ultrafiltration washing step on said predispersion, characterized in that said step is performed in the presence of a compound capable of preventing agglomeration of the nanoparticles of the dispersion,

~~according to claim 1~~ wherein said compound preventing agglomeration of the nanoparticles of the dispersion is a hexametaphosphate.

9. (new) Process according to claim 8, wherein said optionally doped metal chalcogenide is chosen from the group consisting of ZnS, ZnSe CdS, CdSe, doped ZnS, doped ZnSe, doped CdS and doped CdSe.

10. (new) Process according to claim 9, wherein said metal chalcogenide is ZnS doped with Mn^{2+} or Cu^{+} ions.

11. (new) Process according to claim 8, wherein said precipitation step is performed according to the double jet

principle whereby a first solution containing said metal ions and optionally said dopant salt, and a second solution containing said chalcogenide anions are added simultaneously to a third solution.

12. (new) A process for the preparation of a nanoparticle dispersion of an optionally doped metal chalcogenide, comprising the steps of:

(a) performing a precipitation by mixing together appropriate aqueous solutions of metal cations, of chalcogenide anions, and optionally of a salt of the dopant respectively, thus forming a predispersion,

(b) adding a compound capable of preventing agglomeration of the nanoparticles of the dispersion to said predispersion;

c) performing a diafiltration and/or ultrafiltration washing step on said predispersion in the presence of said compound.

13. (new) Process according to claim 12, wherein said optionally doped metal chalcogenide is chosen from the group

consisting of ZnS, ZnSe CdS, CdSe, doped ZnS, doped ZnSe, doped CdS and doped CdSe.

14.(new) Process according to claim 13, wherein said metal chalcogenide is ZnS doped with Mn^{2+} or Cu^{+} ions.

15.(new) Process according to claim 12, wherein said precipitation step is performed according to the double jet principle whereby a first solution containing said metal ions and optionally said dopant salt, and a second solution containing said chalcogenide anions are added simultaneously to a third solution.

16.(new) Process according to claim 12, wherein said compound preventing agglomeration of the nanoparticles of the dispersion is thioglycerol.

17.(new) Process according to claim 12, wherein said compound preventing agglomeration of the nanoparticles of the dispersion is glycerol.

18. (new) Process according to claim 12, wherein said compound preventing agglomeration of the nanoparticles of the dispersion is a polyphosphate or polyphosphoric acid.

19. (new) A process for the preparation of a nanoparticle dispersion of an optionally doped metal chalcogenide, comprising the steps of

(a) performing a precipitation by mixing together appropriate aqueous solutions of metal cations, of chalcogenide anions, and optionally of a salt of the dopant respectively, thus forming a predispersion,

(b) performing a diafiltration and/or ultrafiltration washing step on said predispersion, characterized in that said step is performed in the presence of a compound capable of preventing agglomeration of the nanoparticles of the dispersion,

wherein said compound preventing agglomeration of the nanoparticles of the dispersion is glycerol.

20. (new) Process according to claim 19, wherein said optionally doped metal chalcogenide is chosen from the group

consisting of ZnS, ZnSe CdS, CdSe, doped ZnS, doped ZnSe, doped CdS and doped CdSe.

21.(new) Process according to claim 20, wherein said metal chalcogenide is ZnS doped with Mn^{2+} or Cu^{+} ions.

22.(new) Process according to claim 19, wherein said precipitation step is performed according to the double jet principle whereby a first solution containing said metal ions and optionally said dopant salt, and a second solution containing said chalcogenide anions are added simultaneously to a third solution.

23.(new) A process for the preparation of a nanoparticle dispersion of an optionally doped metal chalcogenide, comprising the steps of

(a) performing a precipitation by mixing together appropriate aqueous solutions of metal cations, of chalcogenide anions, and optionally of a salt of the dopant respectively, thus forming a predispersion,

(b) performing a diafiltration and/or ultrafiltration washing step on said predispersion, characterized in that

said step is performed in the presence of a compound capable of preventing agglomeration of the nanoparticles of the dispersion,

wherein said compound preventing agglomeration of the nanoparticles of the dispersion is a polyphosphate or polyphosphoric acid.

24.(new) Process according to claim 23, wherein said optionally doped metal chalcogenide is chosen from the group consisting of ZnS, ZnSe CdS, CdSe, doped ZnS, doped ZnSe, doped CdS and doped CdSe.

25.(new) Process according to claim 24, wherein said metal chalcogenide is ZnS doped with Mn^{2+} or Cu^{+} ions.

26.(new) Process according to claim 23, wherein said precipitation step is performed according to the double jet principle whereby a first solution containing said metal ions and optionally said dopant salt, and a second solution containing said chalcogenide anions are added simultaneously to a third solution.